

POSITION DESCRIPTION

HVAC/Refrigeration Specialist – Advanced
Facilities Management Group # 3, Bureau of Building Management
Division of Facilities Development & Management

Position No. 002937

May 2019

Position Summary

Under the general direction of the Buildings and Grounds Superintendent, Bureau of Building Management Group #3, this position is primarily responsible for the operation, inspection, repair, installation and preventive maintenance of all mechanical, HVAC/Refrigeration systems and related electric, pneumatic, electronic and computerized direct digital temperature controls for the Milwaukee Crime Lab and other assigned facilities managed by Group #3, including the Waukesha State Office building and Milwaukee State Office Building.

The Milwaukee Crime Lab is located on the near south side of Milwaukee, in the City of Milwaukee. The facility contains offices and laboratories for the Department of Justice.

This position will perform system analysis, maintenance and repairs on HVAC/Refrigeration equipment including but not limited to air handlers, VAV boxes, fume hoods, exhaust fans, humidification systems, boilers chillers, circulating pumps, heat pumps, air and water filtration systems, pneumatic, electric and Direct Digital(DDC) temperature controls, static pressure controls, temperature control air compressors and refrigerated air driers, air cooled or water cooled condensers and evaporative cooling towers.

This position will provide other maintenance or repairs on emergency generators, plumbing equipment and lighting control systems as well as collaborating with building occupants and Facility Managers with recommending, implementing and maintaining energy savings initiatives.

Goals and Worker Activities:

45% A. Provide required repair work, resulting from customer requests, facility managers requests, supervisors' instructions or work noted during maintenance and inspection efforts on HVAC/Refrigeration and temperature control equipment, maintaining communications to designated building contacts.

A1. Repair, maintain, adjust or replace malfunctioning components in heating, HVAC and refrigeration equipment, including temperature control air compressors and air driers and all temperature control systems.

A2. Provide heating, HVAC and refrigeration systems and controls diagnostic, calibration, and repair/replacement efforts for equipment malfunctions.

A3. Read and interpret building construction plans as well as complex systems diagrams to perform analysis and repairs or to make adjustments.

A4. Access and interpret Direct Digital Control (DDC) system performances and initiate adjustments and program changes in response to customer complaints and system malfunctions.

A5. Identify and initiate appropriate actions to address seasonal needs for indoor air quality, freeze coil protection, cooling towers, heating and cooling system change over requirements.

A6. Maintain and implement changes to building equipment lists, operational records, building construction plans, and respective temperature control plans as equipment changes or temperature control strategies are modified.

A7. Provide lead role as the HVAC/Refrigeration and building support systems expert resource on assigned projects and repair/improvement efforts.

A8. Serve as first point of contact on appropriate heating, HVAC/Refrigeration and other building mechanical needs, including communicate, receive and prioritize service requests.

A9. Assist Facilities Management staff and occupants in identifying any mechanical problem areas and incorporate findings into an immediate or planned repair or future project.

A10. Upon request from Facility Manager and/or building occupant or notification from a central response authority, provide urgent HVAC/Refrigeration and other equipment repair assistance, and/or contractor oversight during normal work hours and during non-work hours. Report event progress updates to the respective building contact and the Facility Manager as needed.

A11. If HVAC or other building support systems are inoperable, immediately notify building contacts as well as the appropriate Facility Manager, informing them of the outage and expected system start-up. Coordinate arrangements for temporary services as needed.

A12. Maintain logs of chiller and boiler operations. Record critical temperature and pressure readings and advise supervisor when deemed necessary. Maintain chemical treatment program.

A13. Respond to Indoor Air Quality complaints by investigating respective HVAC/Refrigeration equipment performance. Perform analysis and testing deemed necessary and make required repair and adjustments.

A14. Where required for new construction or existing HVAC/Refrigeration equipment, provide preliminary and final testing and balancing and supporting documentation.

40% B. Perform scheduled maintenance and necessary repairs, on all HVAC/Refrigeration equipment, other building and building equipment, temperature controls and computerized direct digital control systems (DDC) in assigned buildings and assist with coordinating all work and systems outages with building occupants and supervisor.

B1. Assist in the development and documentation of routine rescheduled maintenance needs for all HVAC and heating equipment and various types of temperature controls and temperature control pneumatic controls where applicable. Document routine planned maintenance as it occurs.

B2. Update HVAC/Refrigeration equipment lists whenever new equipment replaces old equipment or whenever new equipment is installed. This includes larger project related improvements.

B3. Provide schedule maintenance services for all respective HVAC/Refrigeration equipment and pneumatic, electric, electronic controls as well as DDC systems where applicable in assigned buildings.

B4. Where required, disassemble and inspect malfunctioning temperature control valves, thermostats, controllers as well as other HVAC/Refrigeration equipment and calibrate/repair equipment to ensure reliable and efficient operation.

B5. During maintenance work provide necessary troubleshooting for all unusual vibrations, noise, odors and take appropriate actions to repair immediately or schedule repair or further analysis as deemed necessary. Record those unsafe conditions and inform supervisor and perform repair as soon as possible to correct.

B6. Periodically grease and oil bearings, replace HVAC/Refrigeration air and water filtration devices and drive belts, refrigerant compressor oil analysis, at regular intervals or as needed.

- B7. Perform inventory of material needs for upcoming scheduled maintenance and coordinate procurement of those materials with facilities unit purchasing agent as necessary.
- B8. Assist supervisor in coordinating scheduled outages for all HVAC/Refrigeration equipment, temperature controls and DDC system for maintenance and repairs with building contact and occupants minimizing impact or loss of production and functions.
- B9. Interface with Direct Digital Control systems remotely and/or locally, monitoring and documenting system performance issues and/or initiate repairs, improvements or changes as required. Collaborate with respective Facility Manager on larger scale control strategy repairs or improvements.

15% C. Support the Facilities Management Program assisting with tasks as requested by Facilities Management staff and building occupants.

- C1. Assist in serving as one of the Bureau's knowledgeable Facility Management and HVAC expert at building construction meetings involving assigned architects, engineers, contractors and DOA/DSF project manager and in long term Capital Budget planning.
- C2. Practice excellent customer service by working with your supervisor in providing regularly scheduled communications with tenants regarding ongoing building and support system operations/performance issues and of your planned repairs or improvements or future projects.
- C3. Provide assistance to the Facility manager, Bureau of Operations Management purchasing agent or contract officer in verifying contract compliance for building maintenance services performed such as janitorial, snow removal, lawn care, etc. Order and replace restroom supplies as needed. Assist with the maintenance of grounds and walkways including snow removal and grounds upkeep.
- C4. Maintain shops, work areas, docks and storage areas on a routine basis or as necessary to maintain a clean and safe work environment.
- C5. Inspect and replace light bulbs and ballasts as required and ensure appropriate storage and recycling procedures are accomplished for all used materials.
- C6. Perform scheduled minor maintenance on emergency generators, fire panel and fire extinguishers and other building systems and components as requested.
- C7. Provide maintenance and repair services to plumbing, de-ionized water and compressed gas systems as requested.
- C8. Perform daily inspections of building and equipment and notify supervisor of problems. Take and record daily meter readings.
- C9. Respond to building emergencies and make immediate decisions in the absence of management. Direct or make immediate repairs in emergency situations.
- C10. Update and maintain Computerized Maintenance Management System records including equipment documentation, external charges and time reporting.
- C11. Perform other work as assigned, which may include tasks not specifically enumerated above, necessary to meet the operational needs of the bureau and lab.

Knowledge, Skills and Abilities

1. Advanced knowledge of the operation and maintenance of various types of large and small HVAC/Refrigeration equipment typically provided in commercial office buildings, laboratories and data centers.
2. Advanced analytical skills necessary to diagnose and correct mechanical system failures in HVAC/Refrigeration equipment.
3. Ability to read and understand blue-prints, operation and maintenance manuals and HVAC/Refrigeration equipment temperature control sequences and drawings.
4. Advanced experience, knowledge and ability to locally or remotely access various types/manufacturers of computerized direct digital control (DDC) systems as such that your level of understanding allows you to monitor, modify and troubleshoot various types of control systems.
5. Advanced knowledge and skills using various types of HVAC/Refrigeration testing equipment to enhance diagnostic analysis and the recording as well as documentation of performance data for various types forced air and fluid heat transfer systems.
6. Interpersonal skills necessary to interact effectively with the public, contractors, fellow employees and management.
7. Ability to learn and perform all essential job functions accurately and safely with minimal supervision.
8. Basic mathematical skills, including addition, subtraction, multiplication and basic algebra, necessary to complete HVAC/Refrigeration work.
9. Ability to orally communicate effectively with others, in person or over a telephone/cell phone, with or without assistance, in order to convey information.
10. Computer skills to access and interpret DDC System data.
11. Ability to maintain documentation and records.

Special Requirements:

Physical Demands: Ability to grasp, lift and/or carry tools, equipment or supplies, up to 50 pounds on a regular basis, physically be able to work in various positions, e.g., with arms above your head for periods of time; bending, twisting, crawling, squatting, climbing, stooping or kneeling; ability to enter, exit and perform duties in confined spaces or on scaffolding, ladders or stairs; standing, sitting or walking, while continuously performing job functions, & ability to wear protective equipment, e.g.: hearing, foot, or eye protection, etc.

Working conditions and environment: Physically be able to work in various environments without adverse physical reaction, e.g.; within extreme temperature ranges; outdoor in the summer and winter; in hot, noisy, dirty or dust-filled areas; at heights above 30 feet, etc.

- A valid driver's license that meets the state's risk management standards, or the ability to provide one's own reliable transportation on a consistent basis
- Ability to work some nights and weekends to respond to critical building issues, conduct preventive maintenance and care of assigned buildings.